



Macdonald College Library DEC 2 - 1977

# THE HARVEST

Macdonald College Volume XLIX No. 2 November, 1977

## FRANCOPHONES SWAMP MAC

Paul Richard

Don't worry, there is no reason to panic yet. On the contrary, the French presence on campus can benefit Mac.

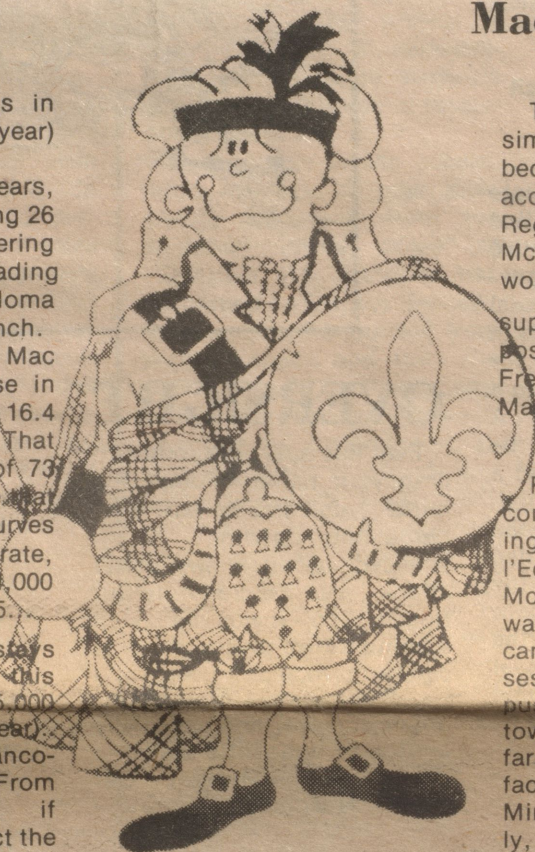
For one thing, French enrollment increases the overall number of students registering ensuring that Mac remains a healthy, viable college. Also, one should realize that we are in a unique and privileged situation here at Mac where anglophones and francophones live and study together in relative harmony... only the occasional brawl or two... But let's have a look at the figures.

Mac has the highest percentage of francophones of all McGill faculties: 33.5 percent. 789 students registered at Mac this year. Among those, 264 declared French as their mother tongue. First year agriculture francophones now have the majority: 48.6 pct. against 42.9 pct. anglophones. But even if all first year students are present next year, it doesn't mean that this majority will remain: a major

importation of swampies in U-2 usually (as this year) reverses the equilibrium.

In total for the three years, Food Science is registering 26 pct. French, Ag. Engineering 32 pct., Agriculture leading with 41.5 pct. The Diploma program has 13 pct. French. Also, among all faculties, Mac has the greatest increase in overall registration: a big 16.4 pct. from last year. That represents an increase of 73 pct. from 1969-70. Those who are good at population curves can calculate that at that rate, we will be 2600 in 1985, 24,000 in 2000, 2,000,000 in 2025.

McGill enrolment stays pretty steady: 19,111 this year, 19,126 last year (35,000 registered in U de M this year). McGill featured 14 pct. francophones this year. From demography analysis, if McGill continues to attract the same percentage of francophones as now, by 1986 27 pct. of undergrad students would be francophone, an increase of 48 pct. Now, if we apply that



same projection to Mac, we see that in 1986, we will be 64 pct. francophones... will Mac ever become a French school?

### Macdonald Campus of Laval?

The answer to that is a simple no: Mac will never become a French school, according to Dr. David, our Registrar. As Mac is part of McGill, the whole institution would have to switch for Mac suppose this eventuality were possible, wouldn't Mac be French then? No, because Mac wouldn't exist anymore.

Remember what lead to the construction of the new building? In 1968, the Ministère de l'Education du Québec told McGill University that there was no point in supporting two campuses, and that the courses given in Macdonald Campus should be brought downtown. McGill replied that the farm was essential to the Ag. faculty. Of course, the Ministère knew that; so finally, only education moved back to McGill. Then in 1970, for financial reasons, McGill itself wanted the agriculture faculty to go downtown. the rest is known: among others, the

Stewart Foundation was opposed to that. So finally, in 1970, a private bill was passed to allow John Abbott to rent space in our buildings. Then in 1973, the construction of the new building was decided.

But why, in the first place, did the Ministère de l'Education want the agricultural school to leave Mac? Well, they say that in Québec there is room for only one agricultural school.

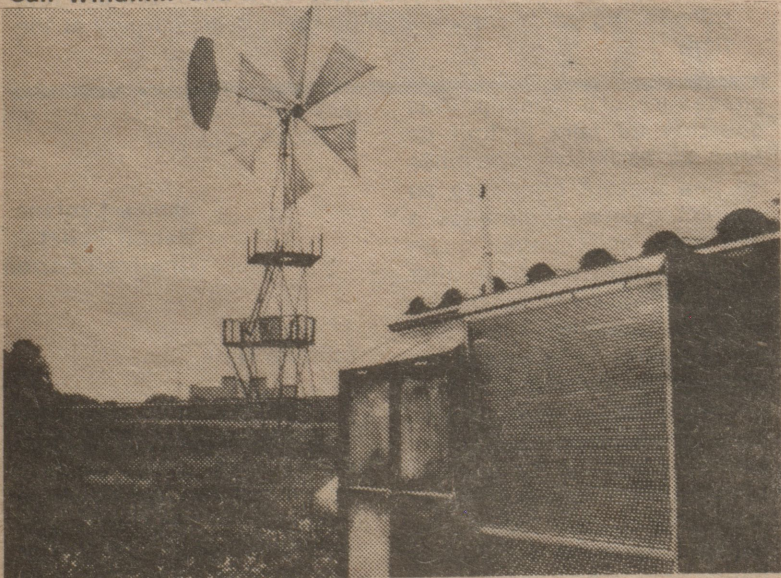
This viewpoint is, to say the least, ridiculous. Macdonald has been and still is making a valuable contribution to agricultural research. Mac has also always produced the highest quality agricultural scientists. Moreover, Macdonald serves the Montreal area.

Nevertheless, if Mac doesn't close now, it is partly due to the fact that it serves the English portion of the Québec population. Ne serait-ce que pour cette raison, on peut le dire: pour une fois, on les aime bien, nos petits anglais!

## BRACE INSTITUTE

### Research for the future

Sail Windmill and Solar Heated Cabin at Brace Field Station



Consistent with *The Harvest's* policy of informing its readers about campus concerns we thought that Macdonald students should be aware of the work that Brace is doing.

The Brace Institute, located behind the C.C. along the Lakeshore road is pioneering some of the most far reaching and innovative research on campus.

Major James H. Brace, after whom the Brace Institute was named, left the residue of his estate to McGill University to be administered as a special fund under the auspices of the



A Simple Solar Still For Purifying Saline Water

Dean of Engineering. Since the Institute's inception in 1956, a consistent policy was followed directed toward the fulfillment of the aims set down by Major Brace in his will. He specified that the money be used "for the purposes of providing for, and carrying on research for the development of methods or eliminating or reducing the salt content of sea water so that it may be used economically and effectively for irrigation". It was his desire that the results of this research be made freely available to all the

peoples of the world. The Institute has, and is continuing to fulfill his wishes.

During the past decade, the institute has built up a unique facility, the value of which is out of all proportion to its size. It maintains an active interest in the field of water desalination and offers practical training and advice in this area. Furthermore, it is now recognized as one of the leading international research centres for solar energy utilization (especially with regard to solar distillation) and for the development of wind turbines.

As an extension of its work, the Institute has recently begun research into controlled environment agriculture. A particularly valuable asset is the Brace Library's collection of reference material on desalination, solar energy, and wind power utilization.

In 1960, a research test facility was built on the island of Barbados where many of Brace's "creations" are to this day being practically applied. The equipment developed is characterized by its simplicity and ease of maintenance, the major cost being the initial capital investment. The Institute's success can be attributed to two major factors. The first is financial: research and development and even field applications are relatively inexpensive. The second is scale: because they deal with small villages and peasant farmers developments themselves are on a small scale.

One of the principal thrusts of activities in recent years has been the participation in the establishment of a Rural Energy Centre in a village in Senegal. This project is sponsored by the United Nations Environment Program

Cont'd on page 3



# LETTERS

Dean Mirza, the present Dean of Students for McGill University is retiring as Dean of Students on May 31, 1978. At the present time a Search Committee for a new Dean is functioning in order to hire a new Dean of Students. Peter Alvo is the Macdonald College representative on this committee.

Last summer, a request was sent to Dr. Bell (Principal of McGill University) requesting the consideration of a Dean of Students for the Macdonald Campus. Dr. Bell contacted the Vice-Principal of Macdonald College, Dean Lloyd, and asked that he determine the need for a Dean of Students for the Macdonald Campus.

A number of representatives of Administration and students met at a few meetings during the past month and it was generally agreed that the Macdonald Campus has many different needs in the area of student services, and because of this, the Campus should have, at the least, its own Committee for Student Services, and possibly a Dean of Students. Because of this consensus, Dean Lloyd has set up a Committee for Student Services for Macdonald Campus. The members of this Committee have yet to be determined, but will include members of the Administration and a number of students.

The Committee will deal exclusively with areas covered by Student Services such as Athletics, Manpower, Counselling, Health, etc.

It is hoped that such a Committee will be able to realize the needs of the Macdonald Campus in these areas and will be able to make decisions that will benefit Macdonald Campus as a whole.

The members of the Committee will be publicized as soon as it is finalized and it will be these people whom you will be able to contact when questions on student services arise.

**Jack Sadler,**  
President, Students' Council

Dear Editor,

I would like to congratulate the Harvest staff on a fine issue. Such investigative journalism (articles re. bookstore and parking decals) informs us of the weak spots in the system we help to pay for and asserts positive pressure towards a better system. A bilingual approach is to be applauded. It helps toward a unified school spirit, something which may not be dead after all. The Harvest also provides contact with the outside world, to the poor isolated Mac student (the article on humor in the Soviet Press). I eagerly await the next issue (I may even submit an article!).

**an avid reader**

The following is a copy of a letter sent to Jack Sadler, President of the Student's Council congratulating all those who worked on the Fall Royal.

Dear Mr. Sadler,

At the regular Faculty Meeting on October 21, 1977, I was asked to convey the appreciation of the staff to the students for the effort they put into the McGill Open House and the Macdonald Royal this year. The weather was most uncooperative both week-ends but in spite of it, the students made the public welcome and gave them a good impression of Macdonald College.

Many thanks for a job well done.

Yours sincerely,

F.A. Farmer,  
Secretary of Faculty

*The Harvest is a monthly publication financed by the student's society of Macdonald College. The content does not necessarily reflect the opinions of the Student's Council nor the Editorial Staff.*

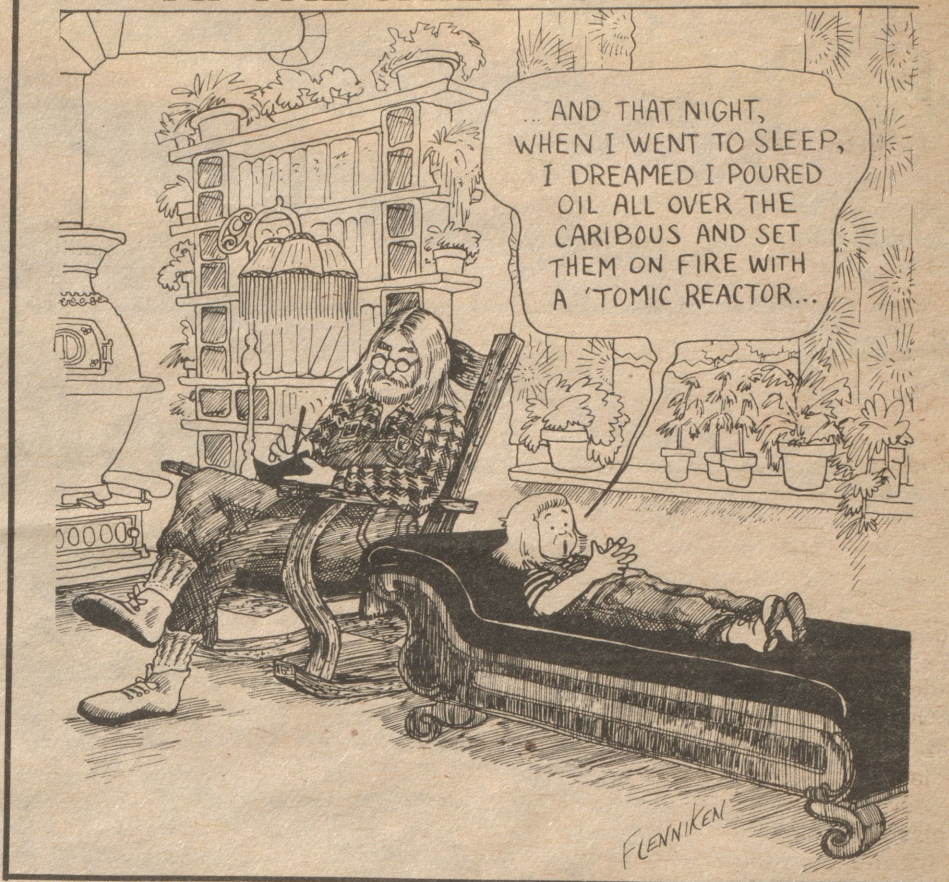
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## AT THE CHILD ECOLOGIST



## OVERSIGHT

Feel left out? We forgot to drag your name through the mud? Neglected to hurt your bargaining position? In-scenced because we didn't attack your sacred institutions? If so - it was merely an administrative oversight that can be corrected. Please send any scandalous headlines, unfair surveys, and especially photos of your little sister in the tub to **The Harvest** - Get you in December...

## AUX ETUDIANTS

**Docteur et Madame Marcel Proulx, Monsieur André Proulx** vous prient d'agréer l'expression de leur profonde gratitude pour les condoléances que vous avez bien voulu leur offrir lors du décès de Guy Proulx.

## COFFEE HOUSE?

What does a student coffee house mean to you? A place where you can go for a coffee and some quiet conversation with other students or professors? A place to listen to music? In fact, it is easy to see that a coffee house is as important to the student as any other activity on campus.

Tout d'abord, tu peux y rencontrer des gens. Sans avoir à connaître "untel" ou "unetelle", la disposition physique de l'endroit te permet de lier conversation spontanément, sans avoir à marcher les dix pieds qui te séparent de ton plus proche voisin comme c'est le cas au CC "lounge". Ça peut te permettre de passer un moment agréable entre deux cours.

De plus, un café étudiant, ça renseigne. En venant y jeter un coup d'oeil, tu sais ce qui se

passe sur tout le campus. Plus question de faire le tour de tous les babillards éparpillés un peu partout pour être au courant qu'une conférence a lieu dans deux jours, qu'un voyage s'organise pour aller visiter le Royal Fair à Toronto en fin de semaine, qu'un film sur la culture biorganique est présenté le soir même...etc.

The coffee house would also be a good place to hold an informal seminar or to play some music. The possibilities are endless. But judging by the success of the Bar Disco's happy hour which approaches the atmosphere of a coffee house, it is evident that there is a real need for a quiet meeting place on campus.

Si tu as des idées ou si ça te tente de participer à l'organisation d'un "café", laisses ton nom et numéro de téléphone

au secrétariat du CC. We'll get in touch with you.

**Janice Leblanc**  
**Benoit Pelletier**  
**Charles Charron**

### Editor's Note

It should be noted that there is a coffeehouse on campus, namely **The Oval** which is located in the basement of Britain Hall. **The Oval** is open every weekday from 8:30 A.M. - 5:30 P.M. and Thursday nights. However, **The Oval** is a John Abbott run coffeehouse and does not seem to serve as a meeting place for Mac students. A Macdonald coffeehouse is a much needed facility and with a little hustle it could be made to work.

## TEST YOUR I.Q. (IDIOSYNCRASY QUOTIENT)

In the tried and true tradition of attending lectures and instead of taking notes on subject matter, taking notes on how many times your prof says "da um" etc., we present the following; typical of the sentence structure of various professors on campus.

1) "I encountered this particular root (rhymes with foot) while in (clears throat) Mexico in the backseat of a '37 Chevy."

2) "We'll now move on to 'Factors affecting forage management' (tosses chalk in partially closed fist, palm towards ceiling) - Factors affecting forage management, Factors affecting forage management..."

3) (Smiling) "We grew them here once...(smile widens) half didn't even germinate (shakes head, smiles wider), the rest died due to a late frost."

4) (Slow monotone) - "Module (pause) B6 (pause) Car-bo-hy-drates. In dis la-bor-a-tory (:roll the r's)..."

5) "...The answer to the problem is 7...It's not always 7...Most times it's a bit less than 7...I've seen it be more than 7...Once it fooled me - it **was** 7! Don't hold me to this but let's say it's approximately 7. Doesn't have to be..."

6) (Cup of coffee in hand, nice 3 piece suit) "What happened to the British Pound this week in relation to Brazilian Coffee prices and Canadian Supply and Demand curves?"

7) "Tess that hypos's at the .005 probability level...You can make up the Quiz only if you bring me a notorized Doctors note saying you were undergoing open heart surgery at the time."



# GARON DANS LES CHOUX:

La Politique Agricole du P.Q.

- extraits d'un article de Robert Migner paru dans Le Devoir du 8 Novembre 1977

Qu'attend le gouvernement Lévesque pour intervenir sérieusement dans l'agriculture? Lévesque, en proclamant l'agriculture priorité nationale, s'était engagé à créer un office québécois des grains de provende, à faire voter au plus tôt la loi cent fois promise du zonage agricole, à régler les problèmes de l'industrie laitière en organisant la distribution gratuite du lait dans nos écoles et, enfin, à travailler à l'autosuffisance alimentaire au Québec.

Mais, chez les cultivateurs québécois, la déception et l'amertume devaient rapidement remplacer l'euphorie électorale. Ils attendent toujours la création de l'office provincial des grains de provende qui les mettrait en mesure de compter sur des grains de toute saison et à un prix abordable. Le gouvernement péquiste craint-il de s'aliéner la bourgeoisie agro-alimentaire en intervenant dans l'achat et l'entreposage des stocks de grains.

La politique de distribution du lait ne favorisera que les grands distributeurs de la chaîne laitière, la production du lait, à la base, étant réglementée par les quotas d'Ottawa. Une politique agro-alimentaire plutôt que rurale, une politique très éloignée de la social-démocratie. De plus l'autosuffisance alimentaire du Québec apparaît, pour le spécialiste de l'agriculture, comme la représentation idéale de la démagogie parce que techniquement irréalisable.

En réalité, depuis le 15 novembre, le gouvernement a peu agi, se contentant d'achever des projets déjà sur la table du gouvernement précédent.

La nomination de Jean Garon au ministère de l'agriculture a provoqué l'étonnement dans les milieux agricoles québécois. L'agriculture exigeait un as, prit la mise et tira un valet. Les responsables de l'UPA accusèrent le ministre Garon d'incompétence et d'absentéisme. Pour la première fois depuis près de cinquante ans, le gouvernement québécois et le syndicalisme agricole entraient en conflit ouvert et profond.

Le P.Q. mène, dans l'agriculture, une politique favorable au grand capital. Il ne suffit pas de blâmer Jean Garon mais l'ensemble de l'appareil idéologique qui prévaut désormais au ministère de l'agriculture. Les appareils agricoles d'état ont accrédité l'idée de l'agriculteur-homme d'affaires ou agro-businessisme. C'est l'idéologie des gros cultivateurs et des capitalistes des zones intrant ou extrant, qui valorise l'effort individuel du producteur agricole comme homme d'affaires, concordant parfaitement avec les intérêts du grand capital. Les petits et moyens agriculteurs doivent travailler comme peu de gens dans notre formation sociale. Ils ne peuvent pratiquement prendre aucune vacance. L'endettement les étrangle. Sont-ils des hommes d'affaires ou des ouvriers? Qu'on ait la franchise de leur dire plutôt que de leur servir la salade agro-businessiste.

Comment pourrait s'articuler une authentique politique agricole nationale et social-démocrate? Elle doit passer par la reconnaissance prioritaire du syndicalisme agricole québécois, certes le plus original et le plus représentatif du monde occidental.

Un autre chou de M. Garon: le zonage agricole. Il devait être déposé, en forme de bill, au mois de septembre '77. C'est encore: "fumée dans un fumoir de jambon."

Pour encourager les cultivateurs à cultiver, encourager les spéculateurs à s'en aller, encourager M. Garon à bouger; élaborons une pétition au niveau du collège, afin de forcer M. Garon à déposer, avant l'été '78, un projet de loi au sujet du zonage agricole.

Toute personne intéressée, laissez votre nom et numéro de tél. au C.C.

## BRACE HERE AND AROUND THE WORLD

in conjunction with the government of Senegal. The Institute is studying the feasibility of meeting the basic energy requirements of the village centre for cooking, lighting and the purification of the water supply. The use of solar, wind and biogas energies are envisaged for the centre. Many other countries are interested in similar types of projects and negotiations are underway.

One of the more recent projects involves testing the suitability of using a solar cooker in developing areas of the world. This project is being undertaken in collaboration with graduate students from the Department of Renewable Resources.

In response to the accelerated interest in alternative energy stemming from the so-called "energy crisis" of 1973-1974 the Institute has developed an Enquiry Service. Thousands of enquiries from within Canada and from the U.S.A., Mexico and the Caribbean were handled this year, involving the dissemination of a considerable number of "Do-it-yourself" leaflets, plans and specification of simple equipment for the conversion of natural energies to useful purposes.

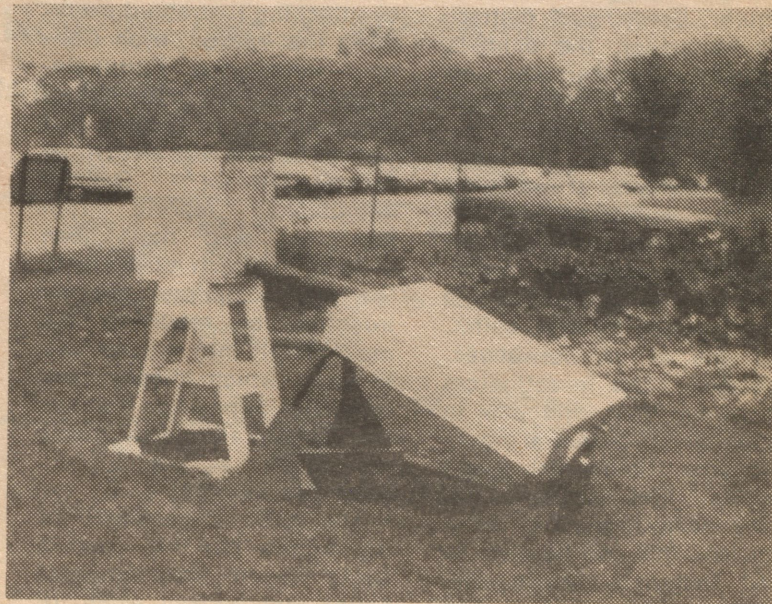
Local problems are not being ignored. In particular, the Institute is applying its expertise to greenhouse design, solar heating and the use of wind power for electricity and for water pumping (drainage) in remote areas. A direct result of the work on green-

houses is the Rooftop Gardens Project which is run by Brace in conjunction with two other groups. The project has been operating for over a year growing food on the flat rooftops of downtown Montreal.

Along the lines of the "Brace Greenhouse", which is now in operation in many parts of North America, a new experimental greenhouse has been built on the front lawn of the

The Institute has also designed cold frames and has assisted in the installation of a heat exchange system whereby waste heat from the University boiler stock is to be recycled through the cold frames. Several joint programs have been undertaken with the Institut de Recherche Électriques de Québec on solar home heating and wind power programs.

A list of publications, all of



A Solar Cooker

Brace Institute. The purpose of the greenhouse is to determine the effect of covering the interior growing surface with an insulated night covering. It is hoped to even further reduce the escalating cost of heating which has had an adverse effect on the Canadian Greenhouse industry.

which are available for modest prices can be obtained by writing to the Institute (Brace Research Institute, Macdonald College of McGill University, Ste. Anne de Bellevue). Included are such things as: how to make a solar still, a simple windmill, solar dryers and plans for the Brace Greenhouse.

Howie Grosser

## HARVEST CRUNCH

### A Pure Food Serial

by TG Roberto

Since the last edition of the Harvest wherein I gave you the news of the comical revolution in the USSR I have received a myriad of communication on the subject. The most interesting and relevant discussion came, not surprisingly, from Alexander Solzenhitsyn who, during the course of our 45 minute person-to-person trans-Atlantic telephone conversation (paid for with your student fees), gave me unique insight into the true history of the Russian revolution. This subject will be expanded in Alexander's soon-to-be released novel entitled "Treadmill to Oblivion—the true life adventure of a typical Russian civilian".

According to Mr. S. the Russian revolution was not of the sudden and violent nature portrayed in our literature. It occurred when the peasants seized power by force and quickly changed all the locks

on the palace so the nobles could not get back in. Contrary to the popular opinion of a sudden and unexpected revolution on the spur of the moment, Alex maintains that the revolution had simmered for years and erupted only when the serfs finally realized that the Tsar and the Czar were the same person. Solzenhitsyn noted that after the revolution the oppressed took over and began to act like oppressors. By then it was very hard to get them on the phone and money lent for cigarettes during the revolt might as well as have been forgotten about. As the new oppressors became too strict there developed what is known as a "police state".

Civil liberties are greatly curtailed in a police state, and freedom of speech is unheard of, although Alexander said people are allowed to mime to a record. Opinions critical of the government are not tolerated, particularly about their dancing. Freedom of the press is also curtailed and the Party "manages" the news, permitting the citizens to hear only

acceptable political ideas and hockey scores that will not cause unrest.

I asked S. about his personal experience under the present regime before he left Russia to live in the free world. "Let me put it this way," he scoffed. "When I was in Russia I was arrested for WHINING WITHOUT GROUNDS AND UNDERMINING THE PARTY. Soon after arriving in Sweden I was arrested for PARTYING WITHOUT WINE IN AN UNDERGROUND MINE. The difference, my friend, is purely semantics."

Thus ended the discourse of one of the world's greatest living authors. By the way, this is no joke. As a matter of fact I'm going to include a joke in my next column so you'll be able to tell the difference.

To find out where these thoughts originate (you don't really believe there is someone called T. G. Roberto, do you?) just send a stamped, undressed elephant to:

461 Ocean Boulevard  
Mainline, Florida  
10-S, NE-12

## PETITION

Louis Vallée

Chambre des Communes, an 1995.

Une loi spéciale vient d'être adoptée. 5000 Acres totalisent le reste des terres agricoles de la région de Montréal.

Toute personne pouvant prouver ses qualités de cultivateur pourra réclamer 3 acres de ces 5000 acres. Un rendement minimal est exigé. Le surplus de production pourra être conservé par le preneur.

Les autres terrains: domiciliaires seront...





# Spectrum

Jan Deadman

## Oversexed Heifers get IUDs.

The Agrophysics Inc. company of California has developed an alternative to chemical additives to promote growth in cattle - an intra-uterine device (IUD) that increases weight gain in heifers. It functions by "reducing energy-wasting sexual behaviour" according to the manufacturer. Denied such distracting behaviour, the animals apparently concentrate on eating.

## The Wonders of Waste.

Recent legislation prohibiting the dumping of untreated shellfish waste at sea has prompted Massachusetts Institute of Technology researchers to study uses of the shell-building material chitin, and one of its derivatives, chitosan. The investigators discovered that chitosan in particular has potential industrial and commercial applications. The substance absorbs heavy metals in solution, and this can be used to treat industrial waste discharges. Chitosan may also be used in kidney-dialysis machines to remove wastes from the blood. Another use might be in food wraps, which would be stronger than plastic wraps.

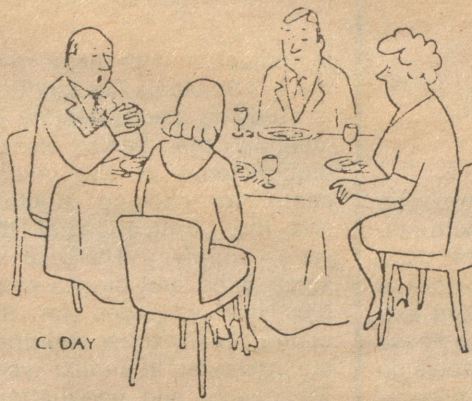
## 'Meanmouth Bass' Bites Back.

A woman swimming in an Illinois pond last summer dashed out of the water when

she came under attack by a new type of fish nicknamed the "meanmouth bass", an experimental cross between native largemouth and smallmouth bass. The bright colour of the ladies swimsuit may have triggered the attack, theorized William Childers, who bred the fish as a challenge to sport fisherman. The bass earned its nickname by attacking just about everything that moved, even Childers' own pet dog. Fortunately, the bass's teeth are not as formidable as its temper, and victims escape with flesh more or less intact. Despite enthusiastic reports from fisherman who have been allowed to match muscle with the fish, Childers has no intention of releasing the meanmouth into natural waterways, which already contain a fish population that has been vastly altered by man's activities.

## Keep 'em Hooked.

The U.S. Department of Agriculture has hit upon a tricky way to keep smokers happy and hooked while lowering the tar content of cigarettes. In a complete reversal of previous research strategy, the USDA is now tinkering with the genetics of tobacco plants in order to produce strains containing more of the addictive substance nicotine, while keeping the tar content constant. The



*"And from whatever additives there are in same, make us truly immune."*

tobacco industry thinks in terms of nicotine-to-tar ratio, and previous research has not paid much attention to tar. The manufacturing processes which reduce tar also reduce nicotine, thus, if the original tobacco has a higher nicotine content, the end product will have a higher nicotine content than is currently possible in low tar cigarettes. Low nicotine tobaccos have lower yields than normal tobaccos.

## Large-Scale Solar Power System Started.

The world's largest solar powered irrigation system was recently put into operation in Arizona. The system developed by Batelle Memorial Institute, features a 50 HP pump that can move 10,000 gallons of water per minute. A 5,500 square foot parabolic collector that can track the sun's path heats water which in turn vaporizes Freon which

spins a turbine to run the pump. During peak sunshine months, the system can pump 5.6 million gallons of water over a nine hour period.

## Disguised Seafood Allowed into U.S.

Tainted seafood imported from Asian countries and rejected by U.S. Food and Drug Administration (FDA) agents may still make it to U.S. markets in altered form. Seafood salvage companies can buy the rejected food and ship it to Mexico, where it is 'reconditioned' and returned to the U.S. for human consumption. Imported shrimp are checked for quality by FDA technicians at ports of entry. If seafood is judged to be spoiled - often on the basis of odour - it is stored in refrigerated warehouses for 90 days, during which time dealers must destroy it, take it out of the country, or recondition

eco

upcoming

Bruce Walker of STOP in Montreal will talk on "Water Quality in Quebec" and what can be done about it. Tuesday, Nov. 29.

# ECOLIFESTYLES

Susan Johnson

If you're not planning on being a member of the rich elite you'd better give a thought to your future lifestyle. It certainly won't be what it is today. In fact, your grandchildren will look back on our age as another Atlantis.

This disturbing message of change ran throughout David Morris' talk on solar heating, the latest seminar in the Ecolifestyles series. David is a graduate student in the Renewable Resources Department, and is doing his masters on solar technology in 'developing' countries. You can usually find him in the Brace Research Institute, in fact his solar cooker is sitting on their lawn.

David began his talk by discussing some basic concepts that must be considered when dealing with solar energy. First, it's necessary to understand the pattern of solar radiation and how it is affected by time of year, location in the world, and climate. For example, in the northern hemisphere the amount of solar radiation that can be collected dips way down during the months when the energy is needed most, namely December, January and February. But, this is only true if your collector is horizontal. If it is vertical, reflexion off

snow banks increases tremendously the amount of energy hitting the collector.

David gave an example of how an ordinary house can use the changing position of the sun to keep the interior temperature modulated. Simply by building a well-positioned ledge outside a living room window you can prevent sunlight from entering when the sun is high in the sky during the hot summer. As the sun falls during the Fall and Winter the sun pours in the window heating up the room inside.

A second principle to be considered is what David calls "power density". Namely, the amount of energy we are wasting through use of petrochemicals is incredible. The energy we can get from solar technology is pipsqueak in comparison, yet if we use our heads solar energy is enough for most of our needs. David gave an example of a school in England (St. George's County Secondary School) which was built with large south facing windows and massive concrete interiors. Despite England's rainsoaked climate, no external heating source was necessary - this is known as intelligent architecture. Another tip using the same principle for people who are insulating a house: instead of putting the insulation between

the interior wall and the exterior concrete wall, put it outside the concrete. The mass of concrete will warm up and let off its heat slowly, preventing the house from getting too hot or too cold.

The third concept David described was "Life Cycle Costing". This is a type of analysis which will allow you to effectively compare the economics of different energy systems. This concept involves three components: 1) interest and principle on any loans you may take out to build the system, 2) the annual operating costs, and 3) the cost of replacing elements of the system when this becomes necessary. Thus, a solar home may require a greater initial capital outlay than an ordinary building but the operating costs are virtually nil and maintenance of the system is cheap.

David concluded the seminar by giving some suggestions for solar heating in Canada, although he is primarily interested in the application of this technology in the Third World. A solar home would feature south facing windows which can be covered at night to prevent heat loss. There should be a large mass inside the house; David suggested a massive fireplace in the centre of the house to act as a heat conserver. In fact, there should be many heat sinks in the building. The distribution of the heat should

be done by circulation of air rather than water due to freezing problems here. Anti-freeze can be used but it is very corrosive.

If you want to improve a non-solar house, the first technique is proper insulation. There are also various types of small furnaces independent of the building structure which can be used to supplement other methods of heating. You can also have a solar water

heater.

David admitted that there were some problems with solar heating in Canada because of the cold climate especially for greenhouses and solar cookers. But he pointed out that the amount of radiation we receive is much greater than that in England. Moreover, applied solar technology has only begun to be developed. There is room for a lot of progress in this field.



David Morris and his solar cooker



# EMBRYO TRANSFER UNIT

## What Ever Happened...?

Susan Johnson

In response to enquiries about Macdonald's Embryo Transfer Unit we interviewed Dr. Downey of the Animal Science Department. Dr. Downey is engaged in research related to embryo transfer and was involved in the unit's embryo transfer service although this is no longer being offered to farmers.

The Macdonald Embryo Unit was established in January of 1975 by research staff in the Department of Animal Science. The primary objectives of the unit were:

1. to provide an embryo transfer service for livestock producers in Quebec. This would increase the rate of livestock improvement by propagating genetically superior females or female lines.
2. to train technically skilled personnel for the rapidly emerging bovine embryo transfer industry.
3. to do research designed to increase the efficiency of the embryo transfer procedure.
4. to develop methods for effectively freezing embryos for long-term storage and export.

offspring from genetically superior or otherwise valuable females called donors. But because AI is used in the process, the progeny receive superior genes from both parents resulting in more rapid improvement of the line.

The procedure is conceptually simple but is more difficult to carry out than artificial insemination. The donor is treated with hormones to induce superovulation or the release of many eggs (an average of 12) from the ovary into the oviduct. Induction of superovulation is presently one of the major stumbling blocks to successful embryo transfer because it is difficult to predict how many eggs a given cow will produce at each superovulation.

Five or six days after insemination the embryos are removed from the donor. This used to be done by surgery which involved possible risk to the valuable donor. Now methods have been developed to perform this function without surgery. Various flushing techniques are being used which eliminate surgical risk

used to induce estrus. Either way, it requires strict management of the herd and accurate estrus detection.

A number of private companies perform most of the embryo transfer in North America but it is a tricky business due to the skill required in the extraction and transfer techniques as well as in management of the herd. The problem of inconsistent superovulation has not been solved, though they are being researched by Dr. Downey here at Macdonald. He is looking at the response of the ovary to various types of hormonal stimulation and is attempting to make the induction of superovulation more predictable.

The exotic breed boom is fast collapsing because of unfulfilled expectations and due to fluctuating beef prices the original market for embryo transfer is failing. Here in the East, embryo transfer is being used more and more for dairy cows first because dairy is the key agricultural industry here and second because the quality of the dairy cow is more easily evaluated than that of the beef cow.

The Macdonald College Embryo Transfer Unit was opened for the dual purpose of offering a 'valuable' service to farmers and of research. It was understood that the transfer service would be a viable business enterprise independent of the research unit. But, for a number of reasons, it was found that running a business and carrying out research in the same unit was extremely difficult. The first reason was financial: falling beef prices and the necessity of maintaining a large recipient cow herd was a back breaking financial strain. The second was organizational: there was only one full time employee on staff, the rest were graduate students and professors. Moreover, Dr. Baker, the head of the project, has left Macdonald.

In short, the failure of the embryo transplant unit was due to a combination of unfavourable conditions and errors in judgement. The most patent error being the prediction that the unit would make money.

So the building which was converted from a sheep barn to an embryo transplant unit has more or less reverted to its original use. The offices (comprising about half the space) which were built to accommodate the expected large staff are not being used however. What exactly will be done with the building is uncertain. No moves to convert the offices will take place until the building's future is decided.

and reduce the time involved in transfer. Theoretically, the procedure can be performed on the farm and fasting of the animal is unnecessary. quite a high degree of manipulative skill is required and sterile conditions are difficult to maintain. The recovery rate is only 50 percent versus about 60 percent or greater with the surgical method.

After the eggs have been recovered, they are either frozen or transferred to a recipient heifer.

The recipients must be at approximately the same stage in the estrous cycle as the donor for the transfer to be successful. This means that a large herd of recipients must be maintained so that there are sufficient numbers in estrus naturally on any given day, or synchronizing agents must be



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Nov. 22 -27

Nov. 29- Dec. 4: Windjammer

Dec. 6 - 11: Highstreet with Jim Zeller

Dec. 13 - 18: OFFENBACH

*The Maples Inn*

121 Lakeshore Road, Pte. Claire  
694-2479

Doors open at 7:30 pm

## The Maples

Tom Rutherford

The West Island music scene has seen a recent rejuvenation in the past months and this, in the opinion of many people, has been largely due to the live band policy of the Maples Inn. The Maples, in Pointe Claire, has provided a much needed means for local talent to ply their wares and gain the experience and stage presence necessary to seek recording contracts with the large American record labels.

Last week, after visiting the Maples for the first time in a number of years, I was pleasantly surprised to find it refinished inside. This facelift provides an atmosphere of spacious oaken warmth that is conducive to the enjoyment of both the music and the beer.

The band playing that night was Eros, local talent with a spacy sound. The first set was all Pink Floyd material and was quite well done. The audience reaction, although mixed was generally pretty receptive. It

must be remembered when listening to a live band in a situation like this, especially one doing Pink Floyd, that on stage they cannot take advantage of the sophisticated equipment used in recording the material we are so used to hearing by the original artists on record. In my opinion, seeing a band like Eros at the Maples Inn is just as satisfying as sitting in the bleachers at the Olympic Stadium straining to hear the music above the noise of the animals seated around you (and a lot cheaper too!).

In the past few years Montreal has spawned a number of recording artists that have 'made it big' on the North American market including April Wine, Mahogany Rush, Gino Vanelli, and, most recently, The Lavendar Hill Mob. With the attention that the Maples Inn is drawing to the up and coming local bands of the area it is not altogether unreasonable that, with work and experience, bands such as Mango, Lyrock and Eros might someday join the list.

## Overeaters Anonymous

Meetings held at St. Edmunds Church

Mondays at 8:00 pm

## ARCADE LEONA

Pinball Machines

Snooker Tables

Pool Tables

Snack Bar

75 Grand Boulevard Ile Perrot

Open 7 days 12:00 am - 12:00 pm



"Popsicle": first live frozen embryo calf

The unit was opened in response to a growing interest in this method of reproduction due to successful experiments at Cambridge (in which 91 percent pregnancy rates were obtained) and to the exotic breed boom. From 1968 Charolais and other European breeds showed superior weight gains over the traditional British breeds. Enthusiasm about these foreign breeds quickly grew in North America and Australia but their importation was hindered by stringent quarantine regulations. The short supply of exotic breeds provided stimulus to the development of an embryo transplant industry by which herds would be quickly built up from a few base females.

Embryo transplant is the female counterpart of artificial insemination (AI) in that it is used to increase the number of



# Growing Tips

Voila - three more plants at very little cost.

## A. Meristem

Trying to keep on the 'budget botany' theme from last issue, let's look at three plants grown from your dinner table.

**Citrus** - Anita Bryant aside, oranges, lemons and tangerines can add to your collection of house plants with just a little care. Next time you indulge in an orange, save a few of the plumpest seeds, place them in a glass of water overnight allowing them to soak. Plant the seeds either directly into a potting mix or into a sterile medium such as moist peat moss, sand, or vermiculite. Patience is required as these seeds often take over a month just to sprout. Once you have a small seedling, there are several things to watch out for:

1 - Citrus all like acidic soils. Add leaf mold and peat moss to your soil mix and, if possible, use a fertilizer which lowers soil pH (often sold as 'evergreen and azalea food').  
2 - Citrus love sunshine, ('a day without sunshine ...') so give your orange tree a sunny window in the winter and place the plant outdoors in the summer. Artificial lighting will also work well.

3 - Don't allow the tree to dry out completely too often or you will discover a nude tree. Keep the soil evenly moist; on the dry side when the growth slows down (usually in the winter).

There are several varieties which will bloom indoors. *Citrus mitis* and *Citrus limonia* are just a few of the available ones. If you do get flowers, take a fine paint brush and make like a bumble bee in each flower. This will set the fruit and give you oranges.

**Pineapple** - When Columbus discovered the Americas in 1492 he more importantly discovered the pineapple. This member of the bromeliad family can grow well in the home. Buy a fresh pineapple with the greenest, healthiest looking top you can find. Cut the top one inch below where it ends and lay this piece on its side for a day or two. This will allow the cut end to dry and prevent the pineapple from rotting. Plant the top in an organic soil mix which has an acid pH (add peat, leaf mold and maybe some coffee grounds!).

Pineapples are partially epiphytic which means they use their leaves for both water and nutrient uptake. Thus a few tricks may help you to your first pineapple:

1. Add a very dilute chemical fertilizer (Rapid-Gro, 20-20-20) to the center of the crown; around a 1/4 strength will do fine. This will slowly be absorbed by the plant and help it along. But be careful, too strong a mixture will burn the plant.

2. Being epiphytic, the pineapple needs humid surroundings; occasional misting with water won't hurt at all.

3. Similar to the citrus, an acid soil is essential so that a little tea in your water about once a month might be a good idea. In addition, pineapples like an iron rich soil so the addition of a chelating agent (available from nurseries) may be needed if your plant starts yellowing.

4. After its second year in your home, place the pineapple in a large plastic bag with a few ripe apples for about 4 days. The ethylene gas given off by the apples will induce the pineapple to fruit.



**Avacado** *Persea americana*  
Knock, knock  
whose there?  
have a cod.  
have a cod who?

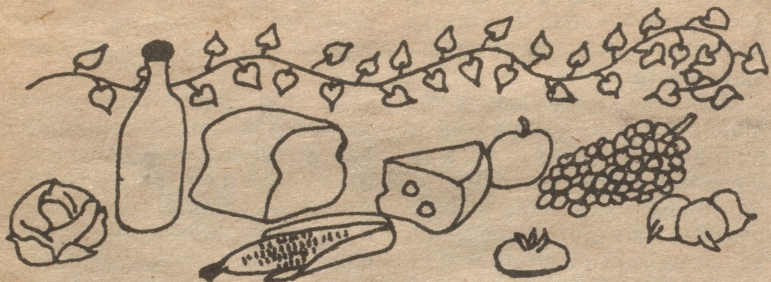
The idea of a tree in the house appeals to many and the rapid growth rate of the avacado makes it a perfect house plant.

Many avacados are sprouted via the toothpick and peanut butter jar method. This system works fine if the water in the jar is changed often to prevent rotting. If on the other hand, you know what roots look like, then planting the pit directly into soil is less work and more productive. A 7 inch

diameter pot is usually sufficient for the first year's growth. The pit should be planted so that 1/3 of it is buried and only the pointed tip is showing. After the pit has sprouted the rest of the pit is covered. A heavy soil mix is fine for avacados: 1/4 loam, 1/4 vermiculite, 1/4 peat will work. If you are really into seeds, a thin one-eighth inch slice taken from both the top and the base of the seed will allow it to germinate faster.

A sunny location and a high ceiling are important but if space is limited, repeated pinching will keep the tree a bush type plant.

## Back to Basics



### Louise Greenberg

Natural yogurt is a good source of protein and calcium. One cup will provide 20 percent of your daily protein allowance. Yogurt is easy to make and is cheap. There are so many ways to eat yogurt: with fruit, nuts, raisins, as a salad dressing, with vegetables, with cottage cheese or plain. Instead of using sour cream, yogurt can be easily substituted. An opened baked potato with yogurt poured onto it is simply delicious. My favourite way to eat yogurt is with cut-up apple, cinnamon, and some raisins.

### Yogurt Recipe 1

1 tablespoon pure gelatin  
4 cups boiling water  
2 cups cold water  
3 cups instant skim milk powder  
4 tablespoons natural yogurt (eg. Delisle, i.e. no preservatives)

Select a large plastic container that has a cover. Add one tablespoon of pure gelatin and 4 cups of boiling water. Stir the mixture, making sure

that the gelatin dissolves. Then add the two cups of cold water. Put your finger into the container and count to ten at a normal rate.\* If you can't tolerate the heat, remove your finger and let the mixture cool down a little bit. If you can tolerate the heat, add the three cups of instant skim milk powder. Dissolve the powder and mix thoroughly. Add the four tablespoons of natural yogurt. Mix thoroughly. Put your finger in again and count to ten. Make sure it is still warm. If it has cooled off add some more hot water and a proportional amount of milk powder. Cover the container. Wrap it in a bath towel then put a ski jacket or a heavy blanket around it. Make sure that the container is standing straight and that the container is firmly wrapped by the covers. Place the bundle on a level surface and let it sit for 6-8 hours. Refrigerate the container after the sitting period is over. Don't worry if the yogurt does not appear very thick. Refrigeration helps make it thicker.

### Yogurt Recipe 2

This recipe is the same as the above except that 2 percent or homo milk is used instead of skim milk powder. Take 4-6 cups of milk and heat it up in a pot. Do not boil. Remove the pot from the burner and let the milk cool down until you are able to keep your finger in it and count to ten at a normal rate. Pour it into your yogurt container. Add 4 tablespoons of the natural yogurt, mix it thoroughly and follow the same procedure as above for incubation.

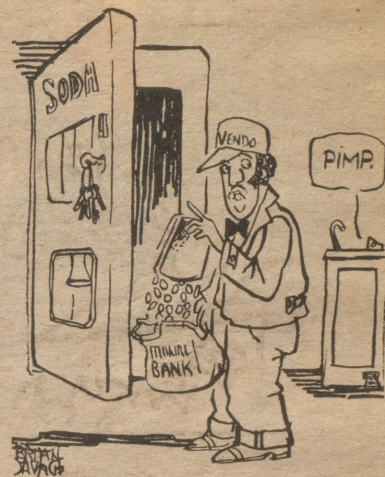
If your yogurt does not come out the first time you can make cheese out of it. Boil the mixture over a low heat until it curdles or separates. Take a piece of cheese cloth or a kitchen towel and lay it down

in a colander. Pour the yogurt into it and let the liquid drain off. What remains in the towel is cheese which you can refrigerate and eat. If you have milk that has gone sour, follow the same procedure.

### Yogurt Salad Dressing

6 walnut halves  
1 clove garlic  
1 tablespoon olive oil (opt)  
1 cup yogurt  
1/4 cup finely diced cucumber  
1/4 teaspoon lemon juice or vinegar  
spices to taste

Mince the garlic, chop up the walnuts and add everything into a small jar or container. Spices are up to the individual. I suggest parsley, basil, pepper, rosemary and some thyme. Mix all the ingredients and voilà.



## Murray Head in Concert

### Larry Scüllin

On Monday Nov. 7, Murray Head, a diminutive Briton noted for his hit song "Say it ain't so" played before a sellout crowd at Place des Arts. Head, whose previous successes have been the role of Judas in "Jesus Christ Superstar" plus several movies, was in fine form despite being "bitten by a bad bug". Murray Head showed the enthusiastic audience that he possessed both the poise and flair on stage essential for an entertainer.

The show started at 9:30 with pianist Paul Millns who impressed the crowd with his playing of blues and ballads. It is all too seldom that a 'special guest star' turns out to be one, so Mr. Millns was a pleasure to hear.

Mr. Head made his entrance at 11:00 (a little late for a Monday night show) and started right in with a mixture of songs which kept the audience with him for the entire show. Well aired songs like "Never ever thought", "Say it ain't so", and the 1920's "Dreamboat" were interspersed with other old and new

songs. The song "Mademoiselle" was particularly well received.

While Head's performance was excellent, the show was tarnished by the fact that the local backup group had played with Head for only a week; their playing was ragged at best. Long pauses between songs, constant tuning and poorly mixed audio all detracted from the overall quality of the show.

I rate the show as good and Murray Head as excellent; watch for his reappearance in Montreal later on this month.



# Mac Railroad on Track

by Chris Wood

A new attendance record for extra-curricular meetings was established last Tuesday night at the first open meeting of the MAC Railroad. The assembling of over 50 people indicates that both students and professors in Renewable Resources and Environmental Biology are collectively concerned about this one important issue - JOBS!!

Dr. R.K. Stewart introduced the meeting stressing the fact that job hunting is a student's responsibility, and as he put it "the difference between the employed and the unemployed is the degree of hustle". Hopefully, hustle will be a major ingredient in this organization as was exemplified by MAC Railroad spokesman Michael Zidle who presented the organization's objectives and methodologies.

Key priorities of MAC Railroad include 1) the establishment of an environmental identity for Renewable Resources and Environmental Biology outside the college (as distinct from Agriculture), 2) opening the lines of communication between students and employers, 3) to improve the efficiency of Canada Manpower Services and of course, to get summer and permanent jobs for students.

These are ambitious goals and we will need a lot of help. Over 30 people indicated their desire to become involved (which is very encouraging) and meetings will soon be held to form committees and delegate responsibilities. Some of the functions of these committees will include the monitoring of Canadian newspapers for employment opportunities, contacting federal and various provincial Public Service Commissions (as well as private employers) and the locating of financial aid in the form of government grants and Student Services funds. There are many other things to be done as well and much of this will depend upon the interests of those who get involved.

As Dr. Rodger Titman stated at the close of the meeting, the full support of the faculty is behind us although the onus is on us as students to make this a worthwhile venture. There is something in this for everyone that gets involved.

Watch the MAC Mouthpiece and the bulletin boards for the dates of future meetings. If you wish to contact us, our office is in the Biology Annex (in Dr. Fillmore's old office) and the telephone numbers of our executive are listed in another article in this issue of *The Harvest*.



by David Gardiner

MAC Railroad is rapidly expanding its base of operations in its continuing efforts to find jobs for renewable resource and environmental biology students and graduates. If you are in these disciplines, or know of persons who have graduated from these disciplines and are

unemployed or driving taxis, please contact us if you would like to be of assistance.

The Railroad has already found jobs that Mac graduates in environment, wildlife, land-planning and soils are qualified to do. Please contact us if you are interested in benefiting from our job search service.

David Gardiner - environment 77 - 482-1152

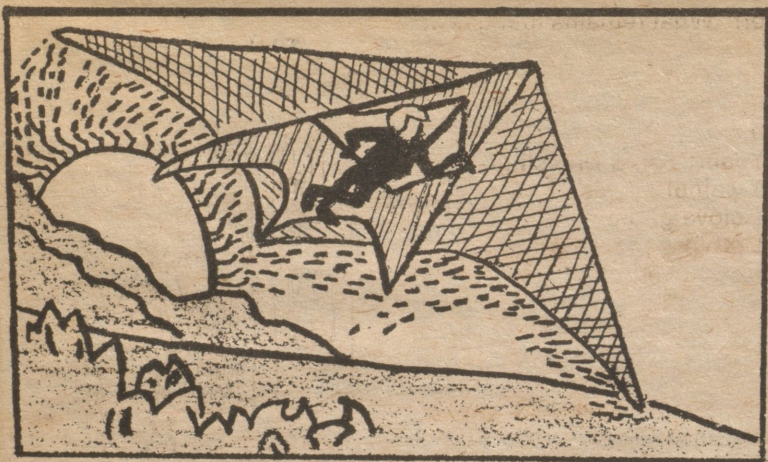
Chris Wood - wildlife 77-697-5207

Peter Roberts - wildlife 77 - 697-5207  
259-4771

Josee Lapierre - environment 79 - 457-5093

Bruce Carlin - environment 79 - 457-2204

## Hang Gliding



Eric Lemarchands

Thousands of otherwise conventional down-to-earth Canadians are regularly risking their necks hang-gliding for the sheer joy of it and their numbers are growing every day.

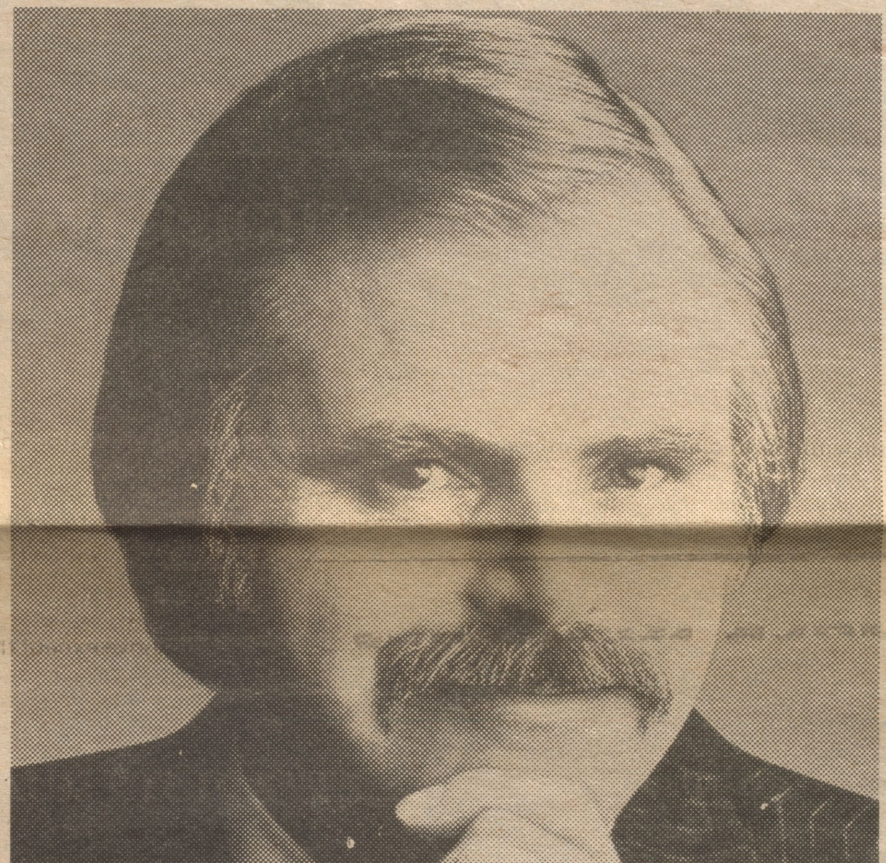
In addition to hang-gliders, there are parachutists, sail plane pilots, rock climbers and motorcycle drivers. The question to the less adventurous one is: Why? The answer appears to be: for the thrill of it all. Defying the risk, escaping the humdrum life, overcoming personal fear are among reasons for participating in any sports. Sportsmen from various fields insist that these sports are dangerous only to the ill-prepared.

In all high-risk sports, there is a need for an ever existing safety consciousness. One should not go ahead in such a

sport without it. Defining this consciousness is very difficult. But it is a feeling you have to bring out; it exists within you, it builds up with your own experience and self-confidence.

For me, the most difficult part is controlling my mind before take-off. I try not to think about falling. But this is what makes it challenging, to overcome the initial fear. Then, while flying, feelings and senses clear out the mind for other purposes: pulling together information concerning the flight. Action has to take place instantaneously.

Anyone who takes to the air, usually loves it and thinks it is very natural. To soar like a bird two thousand feet above ones earthbound fellow men (for hours if you wish) is a liberating experience. There is a tremendous power in the air and to get hooked on it is easy if you learn how to use it.



## There'll never be another Vice President like Richard.

Never.

The President made that promise to himself last Thursday afternoon, after Richard blew an important new-business presentation.

Richard isn't incompetent. The villain is his lunches, or rather the too-many drinks he often has at lunch. Come afternoon, he's just not as sharp as he was in the morning.

Richard is playing dice with his health. His old-fashioned business style is also sabotaging his career.

Today, with competition so rough and stakes so high, even the most generous company can't be patient for long with an employee whose effectiveness ends at noon.

If you're a friend, do Richard a favour by reminding him of the good sense of moderation.

You can bet the man eyeing his job won't help him.

Seagram





# Sports Shorts

## Cross country

On Saturday, Oct. 22 in the Morgan Arboretum, Macdonald College, McGill University and Concordia University squared off to determine who would represent Quebec in the Canadian Intercollegiate Athletic Union Cross Country Championships at Queen's University on November 5th. McGill University won the event with relative ease as Concordia nipped Macdonald for second place. Ken Poskitt from McGill was the individual champion with a time of twenty-nine (29) minutes and thirty-eight (38) seconds. Macdonald's Dan Harvey was seventh with a time of 33 minutes and 20 seconds. Other Macdonald competitors were Yves Ménard, 34 min. 46 sec., Yves Prévost, 35 min. 22 sec., Randall Goodfellow, 36 min. even and Martine Ménard, 46 min. 38 sec. The team results were as follows: McGill 152 min. 50 sec. Concordia 171 min. 17 sec. Macdonald 177 min. 57 sec.

## Intermural

Dan Harvey once again defended his cross-country crown as he edged out eleven other competitors in the intramural championship. A close second was Yves Menard, while 3rd place went to Yves Prevost. Joanne Wiggins was the top female competitor with Martine Menard second.

## Golf

This year's Golf Tournament took place at the Senneville Golf Club on a very dreary, wet day. Of the forty competitors signed up to play, only 20 showed. The low gross was won by Neil Duffy of the Post Grads with a 73. The highest score of the day was recorded by Greg Muise who shot 130. Close to him was Normand Renaud who had 128. Other notable scores were Peter Alvo, last year's champion who posted an 84, while golf coach Peter Arntfield had an 83.

## Soccer

The soccer season came to an end after a week of playoffs that saw Lions United eliminating Swampies and battling Mac Grads for the title.

The Mac Grads team won the title by defeating Lions United 3 to 1 and tying the second match (1-1). Their campaign was remarkable, they finished unbeaten. The team was well organized by their captain Samir who, along with A. Lana, R. Quenneville and J. Wojcik, just to mention a few, played super soccer.

Lions United, well coached by Teddy Gordon and counting on their striker, Jean Gauthier, proved to be a worthy finalist.

The Swampies, who lost the semifinals to Lions, 5 to 2 (on aggregate), felt that field conditions were less than ideal (not muddy enough).  
H. Garino



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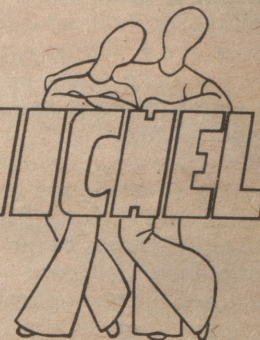
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nos articles.**

*East Ocean Child, Canada*

*Something to be said for a salty bit of dulse found clinging to  
still wet shore rocks on a calm day.  
It's taste?!, well, sweet and brine. It's purple like wild grape.*

*On Sundays we come here for blue mussels—easier than  
clam and pass half morning lulled by wave lap, splashing  
now a' then.*

*A few stories told slick the work and fill our pails by noon,  
here's one:*

*Ben went for lungfish nigh clam harbour.  
Trouble be, not long before he passed miss Janes mew  
while walking in her apple orchard tasting the seasons end.  
Scuttlebutt had it that not long in  
waiting he was tasting miss Jane too!*

*Funneling his experienced works on into the dawn,  
time silouetted by a safer companion,  
night retreated to hidden laughter gardens.*

*Of course, Ben caught no fish  
but wasn't mending nets neither.*

*'mazing what gone by apples will do to your bladder  
t'mention th'tail of civilization, said one.*

*But Ben 'd never been to Newfoundland, much less  
heard of screech, said another.*

*At this old gaffer broke into uncontrollable laughter  
and would've drown  
'cepting we put him to dry bench opening  
draught keys for dinner.  
To say more would be a scurrilous man.*

-november

Nivlek

# Think Snow

Mark Mateus

Are you taking up cross-country skiing this year? So you want to pick up some pointers on technique? If so, then the instructional course is for you. Do you already ski cross country? Would you like to improve your technique so that you can literally fly over long distances with no effort? If so, then the instructional course is for you.

In the winter months, Macdonald Athletics will be offering an instructional course in cross-country skiing, to take place in the Arboretum. There

will be two classes a week about an hour and a half each. The times have not been set, but hopefully they will be convenient for as many people as possible. We will try to organize some form of transportation to the Arboretum.

Beginners can learn to ski, experts can sharpen up some dull spots in their technique. Instruction will be given by Mark Tease, who learned to ski under the European greats such as Suusamees and Lumememm. Watch the main bulletin board for further developments.